Development of web-based administration system for Mandeh Pasir Fisherman Group, Marunggi Village, Pariaman City

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ABSTRACT

As an area close to the sea, the life of the people of Kota Pariaman is highly dependent on marine products. One of the villages in Pariaman City that is very dependent on marine products is the community of Pasir Marunggi Village, South Pariaman District. The strategic location of Pasir Marunggi village, namely the road to go to the Minangkabau international airport and to Pariaman City, automatically makes this village a frequent stopover, especially with the sek rice stalls in Pasir village, which have characteristics with those around Pariaman. Some of the obstacles faced in addition to the lack of knowledge in the field of Information Technology in the process of promoting aquaculture and catches by fishermen, resulting in a decrease in sales turnover for fishermen. This community service was aimed to web-based administration system for Mandeh Pasir Fisherman Group, Marunggi Village, Pariaman City. The computer-based administration system is given because there are still many fishermen who are members of the Mandeh - Fisherman Group who do not understand how to manage a computer-based administration system. The expected result is that business groups can do bookkeeping with a computer by introducing Microsoft Word and Excel for administrative facilities and adding block making training to facilitate the promotion of business groups so that they can be known in other areas and increase revenue turnover.

Pengembangan sistem administrasi berbasis web untuk Kelompok Nelayan Pasir Mandeh, Desa Marunggi, Kota Pariaman. *Sebagai daerah yang dekat dengan laut, kehidupan masyarakat Kota Pariaman sangat bergantung pada hasil laut. Salah satu desa di Kota Pariaman yang sangat bergantung pada hasil laut adalah masyarakat Desa Pasir Marunggi, Kecamatan Pariaman Selatan. Letak desa Pasir Marunggi yang strategis yaitu jalan menuju bandara internasional Minangkabau dan menuju Kota Pariaman, otomatis membuat desa ini sering disinggahi, apalagi dengan warung nasi sek di desa Pasir yang memiliki ciri khas dengan yang ada di sekitar Pariaman. Beberapa kendala yang dihadapi selain kurangnya pengetahuan di bidang Teknologi Informasi dalam proses promosi budidaya dan hasil tangkapan nelayan, mengakibatkan turunnya omzet penjualan bagi nelayan. Pengabdian masyarakat ini bertujuan untuk sistem administrasi berbasis web untuk Kelompok Nelayan Mandeh Pasir, Desa Marunggi, Kota Pariaman. Sistem administrasi berbasis komputer diberikan karena masih banyak nelayan yang tergabung dalam Mandeh – Kelompok Nelayan yang belum memahami cara mengelola sistem administrasi berbasis komputer. Hasil yang diharapkan kelompok usaha dapat melakukan pembukuan dengan komputer dengan memperkenalkan Microsoft Word dan Excel untuk sarana administrasi dan menambah pelatihan pembuatan blok untuk memudahkan promosi kelompok usaha sehingga dapat dikenal di daerah lain dan meningkatkan omzet pendapatan.*

INTRODUCTION

Education is the main vehicle for preparing quality human resources (Adam, 2022; Agustini et al., 2021; Arifin et al., 2021; Muhlasin et al., 2022; Muninda et al., 2021; Octaviana et al., 2021; Prasetyo et al., 2022; Rohmania et al., 2022; Sari et al., 2021; Varisa & Fikri, 2022), including fisherman community. West Sumatra is a province located on the west coast of Sumatra Island (Adry et al., 2018). This province is part of the territory of Indonesia, which has a wider ocean than land. West Sumatra has approximately 200 islands that already have names and 91 that have not been named (Kamarni et al., 2019). A total of 99 islands are located in the Mentawai Islands Regency, And the rest are on the coast of West Sumatra (Deliana & Lubis, 2020). The existence of the islands in West Sumatra is connected by ships and traditional boats (Nova, 2017). Traditional boats and boats play an important role, both as a means of transportation for trade and as a means of fishing (Hanafi et al., 2019). Of the 19 cities/regencies located in West Sumatra, not all are located on the coast of West Sumatra.

Pariaman City is a city located on the coast of West Sumatra(Yusuf et al., 2021). Pariaman City is located on the west coast of West Sumatra with an area of 73.36 square kilometers, consisting of an ocean area of 12 square kilometers and a coastline of 12 kilometers (Fasdiah et al., 2022). As an area close to the sea, the life of the people of Kota Pariaman is highly dependent on marine products. One of the villages in Pariaman City that is very dependent on marine products is the community of Pasir Marunggi Village, South Pariaman District (Ophiyandri et al., 2019).

The strategic location of Pasir Marunggi village, namely the road to go to the Minangkabau international airport and to Pariaman City, automatically makes this village a frequent stopover, especially with the Nasi sek stalls in Pasir village, which have a characteristic similar to those around Pariaman (Haryani & Aditya, 2020). Village Community is an effort to develop independence and community welfare by increasing knowledge, attitudes, skills, behavior, abilities, awareness and utilizing resources through the establishment of appropriate policies, programs, activities, and assistance. In 1990, fishermen from Pasir Marunggi Village experienced a declining economy, due to fishermen from outside Pasir Marunggi village such as: Taluk village, Karan Aur, Tiku and even Sibolga who caught fish in Pasir Marunggi village. Fishermen who come from outside are already using machines, while fishermen from Pasir Marunggi still use hooks and nets to catch fish in the traditional way (Arif et al., 2016). This makes fisherman catches not optimal. The catch is sold on the beach and some are sold to the Fish Auction Place (TPI).

 The interesting thing for researchers is that there are only slight changes in the fishing methods or tools used by the fishermen in Pasir Marunggi village to find fish. In fact, many fishermen still catch fish in the traditional way, namely canoes and hooks, when they still rely on the wind factor to catch fish (Lumbantobing et al., 2022). In 1990 the income of fishermen in Pasir Marunggi Village did not increase significantly. However, from 2000 to 2015 the life of the fishermen in Pasir Marunggi village began to develop along with the emergence of technology and the business of rice stalls (restaurants) as one of the tourist attractions in Pariaman City (Nursanty et al., 2022).

Some of the obstacles faced in addition to the lack of knowledge in the field of Information Technology in the process of promoting aquaculture and catches by fishermen, resulting in a decrease in sales turnover for fishermen (Varudharajulu & Ma, 2018). The development of fishermen's lives in the village of Marunggi received attention from the government in the form of assistance in both aquaculture and capture cultivation (Haligamo et al., 2022). The aid is in the form of ships, ranging from 5 tons to 30 tons, either in the form of wooden or fiber boats. Meanwhile, assistance in the field of Information Technology such as computers, Internet facilities for marketing promotions and knowledge of the use of computers in managing the administrative system has never been done to the actors of aquaculture and capture culture. In the process of aquaculture and capture cultivation, it is managed by a partner called the Mandeh - Fisherman Group (Rahim et al., 2018). In the process of cultivating and capturing networks, there are obstacles, but this Fisherman Group has problems related to marketing (Nasution et al., 2022). Marketing carried out by Fisherman Group is still classified as conventional which relies on mobile phones (Noor et al., 2022). And there are also cultivated products, and their catch is handed over to the shelter or sold directly to traditional markets (Anshari & Afriansyah, 2022). With a marketing system like this, it can reduce profits for Fisherman Group or the fishermen themselves (Adrimas et al., 2019).

This community service was aimed to web-based administration system for Mandeh Pasir Fisherman Group, Marunggi Village, Pariaman City. This training related to the computer-based administration system at the Mandeh - Fisherman Group is very much needed (Jalinus et al., 2019). The computer-based administration system is given because there are still many fishermen who are members of the Mandeh - Fisherman Group who do not understand how to manage a computer-based administrative system. Management of computer administration systems such as providing training in Microsoft Office Word, Excel and Power Point at the Mandeh - Fisherman Group. Therefore, this community service is very much needed to avoid the occurrence of a digital divide for people in the Marunggi village.

METHOD

The transfer of science and technology carried out by the coaching team is carried out at each stage using the concept that all these activities involve the Mandeh - Fisherman Group. Joint Business Groups are given guidance through the process of listening, knowing, training, evaluating, giving, receiving and implementing. Through the coaching process, it is

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hoped that all Fisherman Group can utilize science and technology related to the computer-based Management of the Fisherman Group Administration System in managing their business, such as managing sales reports and correspondence. To manage the sales administration system, it must be clearly recorded in the bookkeeping, all sales notes must be recapitulated into a computer system that utilizes MS Excel. In the process of offering aquaculture and catch, an electronic bidding system is needed, such as using MS Word in writing letters, sending emails by utilizing internet facilities.

In order for the Fisherman Group. To implement a good administrative system, it is necessary to provide incentives for the Fisherman Group. After the coaching was carried out, the team provided briefing to introduce computer equipment to the two Fisherman Group, with the aim of Fisherman Group being able to manage the administrative system independently. So, with this coaching, it is expected to improve the administrative system, increase sales and finally get big profits. So that each process goes well, the delivery of innovation to KNM members is taken through the stages of explanation, discussion, practice and stages of mentoring and evaluation of service results. In general, the approach process to assist KNM for managing computer-based administrative systems is shown in the Figure 1.
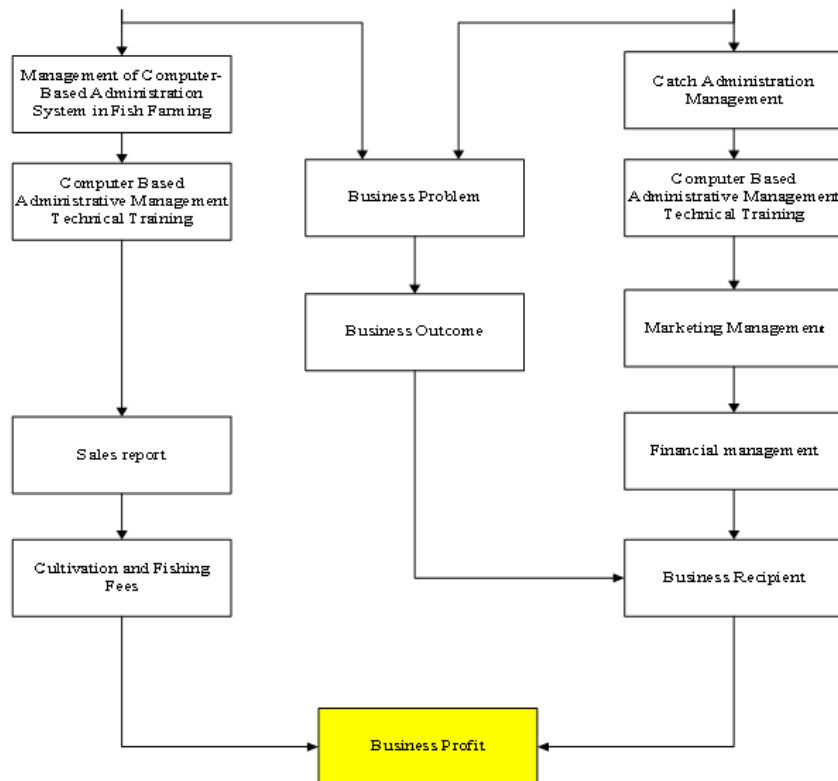

Figure 1. Flow of Service in Marunggi Village

Solutions and Output Targets

Solutions The solution given to the Pasir Mandeh Fishermen group, which is in Pasir Sigadondong, Marunggi Village, Pariaman City. Providing guidance on the introduction of computers as a means of using technology in everyday life to avoid the digital divide. Train Joint Business Groups in managing administrative systems-based computer like using Microsoft Office. Providing guidance on how to manage finances recorded in a computerized manner, to make it easier to access financial data and organize document archives so that if one day is needed, they can be quickly and easily accessed.

The target to be achieved through efforts to improve the ability of fishermen joined in the Pasir Mandeh Fishermen Group from the administrative form conventional into a computer-based administration system. If the Computer-Based Administration System in the prayer fishermen group is stagnant is implemented so it can reduce the digital divide and the fishermen's economy increase. And to provide broad value benefits, this coaching can carry out to a similar Pasir Mandeh Fishermen Group in Pasir Sigadongdong, Marunggi Village, Pariaman City, to be in the form of new coaching, good Computer development and marketing. Furthermore, it is expected to increase turnover for fishermen and understand the use of computer-based administrative systems. Specific outputs are listed in Table 1.

Table 1. The outcome of community service

No	Type of Outcome	Indicator Achievement
1	Scientific Publications in Journals/Proceedings	Publish
2	Publication in Mass Media	No
3	Increase in Turnover for the Pasir Mandeh Fishermen Group engaged in the economy	There is
4	Product Quality and Quantity Improvement	There is
6	Improvement of Community Understanding and Skills	There is
7	Improvement of Public Peace / Health	There is
8	Services, Models, Engineering, systems and Products	There is
9	Intellectual Property Rights (Patents, Simple Patents, Copyrights, Trademarks, Trade Secrets, Industrial Product Designs, Plant Variety Protection, Topographic Protection	No

RESULTS AND DISCUSSION

Action

This training takes the theme of Computer-Based Administration System at the Mandeh - Fisherman Group in Marunggi village. The coaching consists of three main materials delivered by the Service Team, namely Introduction to Computers and Introduction to MS Office. Both materials were given in a structured manner for 3 consecutive days. For the introduction of computers, the material provided includes Computer Systems which are divided into: Hardware, Operating Systems, Application Programs, Brainware (users). The material assignments given are as follows: (1) Introduction to Hardware, of course, introduces the computer device itself, such as the functions of the CPU, Memory and Hard disk. (2) For the operating system to introduce the computer operating system itself, the computer will not be able to work properly without an operating system. The operating system introduced in the training was Windows Operations Student. While other operating systems are not provided, due to time constraints. (3) Application Programs on computers are ready-to-use software that will later be used to help carry out the work of its users. In a computer this application is prepared according to their respective needs.

Outcome of Devotion

The output target of holding a lecturer service regarding the development of administrative systems using computers in the Mandeh - Fisherman Group on Marunggi Island is that the community is able to understand computers among the introduction of devices such as. Motherboard, memory, hard disk, how the processor works and input devices such as keyboard, mouse, and output such as monitors, speakers, printing machines and how to run applications on computers, especially Offices applications where we explain what Microsoft Office Word is (Hananto et al. al., n.d.). As we know, Microsoft Word is used to help create documents in the form of reports or papers. And in Microsoft Word there are functions, namely: (1) Outline Creation; (2) Use of Break Section; (3) Page Numbering; (4) Table Listing; (5) Creating a Table of Contents; and (6.) Editing with Document Map

Which is useful for the administrative system, especially the administration of the Mandeh - Fisherman unit group on Marunggi Island where for correspondence it still uses a manual, namely writing instruments to check or calculate the income of the Mandeh - Fisherman group. With the dedication in the form of coaching that we do, we hope that the Marunggi community can at least understand what a computer is and be able to use computer applications, especially MS Office.

Discussion

Based on the results that have been described, all members of the Mandeh - Fishermen Group in Marunggi village can operate computers and understand how computers work themselves and recognize the devices on their own computers and can make administrative bookkeeping reports for fishermen without having to do it manually. Such as writing correspondence with Microsoft Office Word, understanding the tools in Word and typing with 10 fingers and a little understanding of computer networks and calculations using Microsoft Office Excel to calculate the income of the Mandeh - Fisherman group. And all Mandeh - Fishermen Group members can report their catch to the Pariaman City Fisheries Service.

The discussion of the results of the service that we carried out in Marunggi village can be described in general as follows. Format Text Word in making Letters You can set the text format by using one of the following methods, Block

the text that you want to format, then set the format as you want. Place the cursor at the initial position and then set the format. This way, all text that you type starting from the initial position will follow the format you selected until you make changes back or move the cursor position to another part of the document. Creating Tables and Calculations with Formulas Make a daily wage list worksheet from Mandeh - Fishermen Group Fishermen as shown in Figure 2. Also enter the contents of the Empty Working Time and Total Wage, and then change the form to a table form. Question Provisions: Working Time = Hours Out- Hours In; Total Wage = Working Time * 24 * Wage Rate/Hour.

Figure 2. Examples of Materials Provided

Setting Design in Power Point

One of the important elements of a good presentation, including presentations for presentation assignments that can be done by Mandeh - Fishermen Group members in presenting their reports, is using power point (Figure 3). One of them uses the default themes from PowerPoint as follows: (1) Click the Design tab of the ribbon in PowerPoint. (2) Click on the Themes arrow. The arrow in the middle is for scrolling the themes screen, while the arrow at the bottom is for all existing themes. You can choose it by clicking on one of the built-in themes, etc.
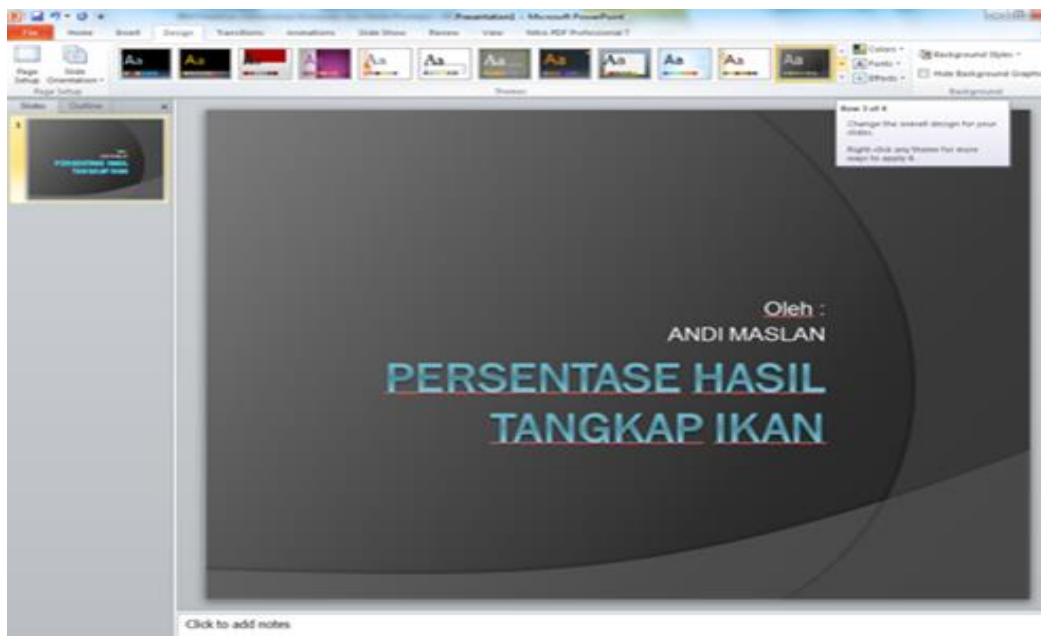

Figure 3. Power Point Presentation Design Materials

Evaluation of Service results

After serving for three days in a row, the level of achievement of participants in understanding the material provided can be seen in the Table 2.

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<div align="center">Table 2. Evaluation components</div>

No	Evaluation Component	Observed aspects	Observation result (%)	Scale
1	Reaction	Training Participants Satisfaction	82	Very satisfied
2	Study	Training Participants Activities	85	Very satisfied
		Coach Activities	78	Well
		Infrastructure	70	Well
		Learning strategies	75	Well
		Training materials	76	Well
3	Behavior	Member Participation	70	Well
		Support Village Apparatus	80	Very satisfied

From the results of the service evaluation carried out in Marunggi village, it can be seen from the graph that all indicators are well fulfilled. Thus, the community was very satisfied with the training. The level of satisfaction of participants reached 82%, the achievement of the learning process of participants was 85%, good activities during the activity reached 78%, the facilities used were good 70%, teaching methods were good 75%, good material reached 76%, and participation of fisherman group members reached 70% and village apparatus support reaches 80%. The results of this evaluation become a reference for continuing service in the village of Marunggi, South Pariaman District. The documentation of the community service was shown in Figure 4, Figure 5, Figure 6, and Figure 7.

Figure 4. Socialization of community service

The community service activity began with a field survey and direct questions and answers with the Pasir Mandeh Fishermen's Group and the Marunggi village head with questions and answers on the problems that occurred regarding the promotion of facilities.

Figure 5. Material presentation

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Furthermore, community service activities carried out presentations and learning how to use computers as a means of promotion for the Sigadongdong sand fisherman group, Marunggi village.
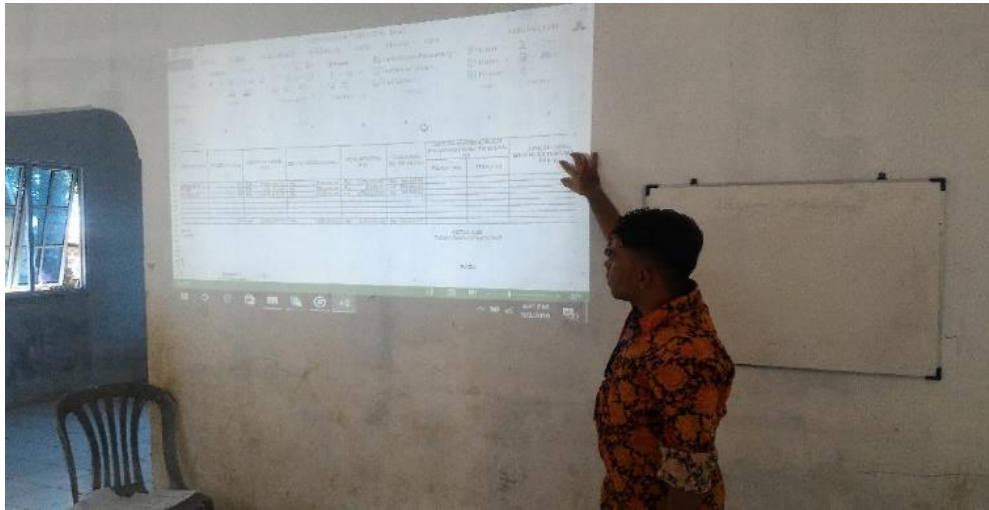

Figure 6. Introduction to administrative system with excel

Delivering material on Microsoft Excel and bookkeeping for administrative facilities and giving tutorials on how to make blocks.

Figure 7. science and technology transfer process

The speaker's activities are underway with enthusiasm from the fishermen's group and Marunggi village officials with supplies delivered by the service team. Planned activities for fostering a Computer-Based Administration System for Fishermen in Mandeh prayer fishermen groups may experience the following problems: Socialization Program Development: In order to carry out outreach to Fishermen Groups, prior approval is required that the Fishermen Group is willing to be given guidance. Because each fishing group has a minimum of 10 members and this development must go through their approval. And these members play a role to achieve the success of this activity. During the initial survey to the location of the fishermen's group, they were very interested in the training plan, so that all fishermen's wishes to know technology could be realized. Action Plan: Details of coaching activities need to be conveyed in detail to the fishermen group, because every step of coaching requires participation. The action plan for this coaching is to provide an introductory coaching and computer-based administration system. Selection of places and equipment for computer development is a step to produce useful training for fishermen groups. The coaching place is in Sigadongdong sand, Marunggi village. Business Recording, Bookkeeping and Business Evaluation: All business activities, both related to activities and cash flow, must always be properly recorded. This part is a difficult part to do, because in general conventional entrepreneurs never keep records. Business recording and bookkeeping is an important part of business monitoring and evaluation. Without proper recording and bookkeeping of business monitoring and evaluation, implementing a computer system and web-based promotional media can improve the business results of the fishing

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groups. To carry out this service, the service team first conducted a preliminary survey, the survey was carried out on August 23, 2022. The survey included a site survey, determining a coaching schedule and granting an official permit to Marunggi village. After the letter is received, socialization is needed to the fishermen's group for prior approval that the fishermen's group is willing to be given guidance. Because each fishing group has a minimum of 10 members and this development must go through their approval. And these members play a role in achieving the success of this activity. During the initial survey to the location of the fishermen's group, they were very interested in the development plan, so that all fishermen's wishes to know technology could be realized.

CONCLUSION

From the results of community service activities, it can be said that the introduction of a computer-based administrative system on Marunggi Island is very much needed by the local community, especially members of the Mandeh - Fisherman Group. The service material has been given well and it can be seen that there is an increase in participants' knowledge based on the results of the evaluation that has been carried out. The average service success rate reaches 77% as measured by the results of participant observations during the activity.

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